

Claims

Having thus described the invention, we claim:

1. A method for providing secondary content related to primary content in a broadcast stream comprising the steps of:

obtaining secondary content which relates to the main primary content;

scheduling delivery of said secondary data content in relation to the non-cyclic broadcasting of the primary content; and

cyclically delivering said secondary content based on said scheduling.

2. The method of Claim 1 wherein said scheduling comprises creating a schedule for a first delivery of said secondary content prior to delivery of the primary content and at least one successive delivery of said secondary content after commencement of delivery of the primary content.

3. The method of Claim 2 further comprising dynamically modifying said schedule.

4. The method of Claim 3 wherein said dynamically modifying the schedule comprises adjusting the schedule
5 based on viewer interaction with said secondary content.

5. The method of Claim 1 further comprising generating at least one viewer request for retransmission automatically at viewer's equipment.

6. The method of Claim 5 further comprising receiving said
10 at least one viewer request for retransmission of said secondary content and responding to said at least one viewer request.

7. The method of Claim 5 wherein the automatic generating of at least one viewer request for retransmission from
15 viewer's equipment comprises generating at least one viewer request for retransmission based on at least one of viewer profile information and viewer interaction.

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8. The method of Claim 6 wherein said responding to said at least one viewer request for retransmission comprises rebroadcasting the secondary content.

9. The method of Claim 8 further comprising counting the
5 number of viewer requests for retransmission of secondary content and wherein said rebroadcasting is conducted upon receipt of a threshold number of viewer requests for retransmission.

10. The method of Claim 6 wherein said responding to said
10 at least one viewer request comprises narrowcasting the secondary content.

11. The method of Claim 1 additionally comprising displaying notification data for notifying the viewer of said delivering of secondary content.

15 12. The method of Claim 1 wherein the transport mechanism for said primary content is an analog television broadcast stream, and the transport mechanism for the secondary

content comprises a vertical blanking interval within said analog television broadcast stream.

13. The method of Claim 1, wherein the transport mechanism for said primary content is a digital television broadcast stream, and the transport mechanism for the secondary content is an additional data stream within said digital television broadcast stream.

14. The method of Claim 1, wherein the secondary content comprises content for use by an interactive television application.

15. The method of Claim 1 wherein the secondary content comprises an interactive television application.

16. The method of Claim 1 additionally comprising providing control information with said secondary content.

17. The method of Claim 16 wherein said providing control information comprises including at least one of a unique identifier for said secondary content, an identification of said primary content to which the secondary content

pertains, scheduling information for future broadcasting of secondary content, and timing information regarding relating said secondary content to said primary content.

18. The method of Claim 5 further comprising selectively
5 transmitting said at least one viewer request.

19. A system for providing secondary content related to primary content in a broadcast stream comprising:

an authoring station for scheduling delivery of said secondary data content in relation to the non-cyclic
10 broadcasting of the primary content; and

a broadcast component for cyclically delivering said secondary content based on said scheduling.

20. The system of Claim 19 wherein said broadcast component further comprises means for generating, at least one
15 additional retransmission of said secondary content in response to at least one request.

21. The system of Claim 20 wherein said means for generating at least one additional retransmission comprises

means for transmitting said secondary content over a telephone transmission channel.

22. The system of Claim 20 wherein said means for generating at least one additional retransmission comprises
5 means for transmitting said secondary content over a coaxial cable.

23. The system of Claim 20 wherein said means for generating at least one additional retransmission comprises means for transmitting said secondary content over a
10 wireless return channel.

24. Apparatus at a viewer location for providing display of primary content and secondary content related to said primary content which is broadcast from a broadcast location comprising:

15 a receiving component for receiving an input stream from said broadcast location;

a processing component for identifying said secondary content in said input stream and for handling said secondary content;

20 at least one buffer location for receiving said secondary

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content of said input stream from said processing component
and for buffering said secondary content; and

a display component for displaying said primary content
from said input stream and for receiving said secondary
5 content from said at least one buffer location and
displaying said secondary content.

25. The apparatus of Claims 24 wherein said processing
component comprises means for extracting control information
from said input stream and for handling said secondary
10 content based on said control information.

26. The apparatus of Claim 24 additionally comprising a
request component for generating a request for
retransmission of said secondary content from said broadcast
location.

15 27. A broadcast stream comprising:

first ephemeral primary content; and

at least two iterations of cyclic secondary content
which relates to the primary content and is interspersed
with the first ephemeral primary content.

28. The broadcast stream of Claim 27 wherein a first of
said at least two iterations precedes said first ephemeral
primary content and wherein successive ones of said at least
two iterations accompany portions of said first ephemeral
5 primary content.

29. The broadcast stream of Claim 27 further comprising
control information related to said secondary content.

30. The broadcast stream of Claim 29 wherein the control
information comprises at least one of a unique identifier
10 for said secondary content, an identification of said
primary content to which the secondary content pertains,
scheduling information regarding future broadcasts of the
secondary content, and timing information regarding relating
said secondary content to said primary content.